



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,363	09/22/2003	Philip Richard Troyk	355	4557
32823	7590	09/22/2006	EXAMINER	
DON W. WEBER 235 BRISTOL TROY, IL 62294			KINKEAD, ARNOLD M	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/664,363

Applicant(s)

TROYK ET AL.

Examiner

Arnold M. Kinkad

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12, 14, 15 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 7, 13, 16 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

Art Unit: 2817

## DETAILED ACTION

### *Drawings*

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because figures 2E and 3C are difficult to read. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore,

Art Unit: 2817

the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 1 The reference by Ward, Jr. discloses an FSK RFID transponder, see figure 4, with quad drivers-(multi-phase) feeding the LC tanks, resonat circuits(129,125) and (131,126); these capacitors allow for the charge storage. It is noted in col. 10 , first full paragraph that FSK is allowed for. In that case, the FSK modulation of the carrier frequency is accomplished and the frequency of the transmitter coil is changed to represent the data(1,0...).

The method steps being inherent to the srtructure. It is to be noted that the reference suggests that minimal loss results from such a quadrature drive and inductive coil arrangement that allows for the change in the coil current to allow for minimum loss, see col. 2, last para.(noting the switching loss) – col. 3, summary of invention. Demodulation, decoding by FSK, is also shown in figure 4. It is a multiphase demodulator.

3. is rejected under 35 U.S.C. 102(e) as being anticipated by Ward, Jr(US 6,943,680).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2817

5. This application currently names joint inventors. In considering patentability of the claims under 35

U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2,3,4,5,6,8,9,10,11,12,14,15,17,18,19,20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward Jr. (US 6,943,680) in view of Beigel(US 5,559,507).

The reference by Ward, Jr. discloses an FSK RFID transponder, see figure 4, with quad drivers-(multi-phase) feeding the LC tanks, resonant circuits(129,125) and (131,126); these capacitors allow for the charge storage. It is noted in col. 10, first full paragraph that FSK is allowed for. In that case, the FSK modulation of the carrier frequency is accomplished and the frequency of the transmitter coil is changed to represent the data(1,0...).

The method steps being inherent to the structure. It is to be noted that the reference suggests that minimal loss results from such a quadrature drive and inductive coil arrangement, see col. 2, last para.(noting the switching loss)

– col. 3, summary of invention. Demodulation, decoding by FSK, is also shown in figure 4. It is a multiphase demodulator.

The reference by Ward, Jr. does not describe the FSK signal decoding and the half-cycles associated with such an FSK transmission signal; also, no discussion of time duration for the multiple half-cycles is shown.

The reference by Beigel shows a transponder, see figure 2, with the switching elements(22,24 and buffer amps26,28) allowing for the multiphase driver. The reference shows the half-cycle waveforms for the FSK signal, see figure 5B,5C,

Art Unit: 2817

where the different time durations, i.e., the number of pulses for each(105A,105B) half cycle is different and these are used to represent the data in FSK decoding(see col 7, lines 35-55); they will be compared to determine the information being transmitted based on the number of pulses within the half-cycle.

In light of the above it would have been obvious for one of ordinary skill in the art to have recognized that the FSK demod shown in Ward, Jr. is a general representation of the FSK decoding and the reference by Beigel highlights the waveforms and duration for the FSK transmission which shows the basic concepts for this type of demodulation as the frequency is shifted, number of pulses within a duration is changed. The reference serves as a basic teaching of this type of decoding.

*Allowable Subject Matter*

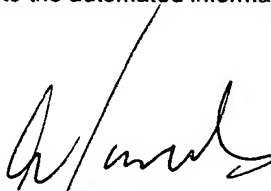
7. Claims 7,13,16 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold M. Kinhead whose telephone number is 571-272-1763. The examiner can normally be reached on Mon-Fri, 8:30 am -5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2817

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arnold M Kinkead

Primary Examiner

Art Unit 2817

Arnold Kinkead

09-17-06